AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions, and listings, of claims in this application:

Listing of Claims:

1. (Currently Amended) A method for efficient processing of a document encoded in a markup language, the method comprising the step of:

communicating a data model representing the document through a bus of a printed circuit board from a special purpose processor configured for processing the ~~encoded~~ document encoded in the markup language, to a general purpose processor configured for further processing of the encoded document as processed by the special purpose processor, ~~both~~ each of said special purpose processor and said general purpose processor being provided as a respective integrated circuit on said printed circuit board.

2. (Original) The method of claim 1, wherein said data model represents a document encoded in mXML.

3. (Original) The method of claim 1, wherein said data model represents a document encoded in XML.

4. (Previously Presented) A method for efficient processing of a document encoded in a markup language, the method comprising the steps of:

receiving a document intended for delivery to a target;

processing the document using a special purpose processor dedicated to processing of documents encoded in the markup language; and

passing the processed document to the target for further processing by a general purpose processor including a microprocessor that is separate from the special purpose processor.

5. (Canceled)

6. (Original) The method of claim 4, wherein said processing step comprises performing a transformation on the document.

7. (Original) The method of claim 4, wherein said processing step comprises creating an array-based model of the document.

8. (Original) The method of claim 4, wherein said processing step comprises creating a tree-based model of the document.

9. (Currently Amended) The method of claim 4, wherein said special purpose processor ~~comprises a dedicated integrated circuit that~~ is specially configured for parsing the document.

10. (Previously Presented) The method of claim 4, wherein said special purpose processor comprises a supplemental general purpose microprocessor for executing computer readable code for parsing the document, said supplemental general purpose microprocessor being distinct from a primary general purpose microprocessor.

11. (Original) The method of claim 4, wherein said passing step comprises communicating the document, as processed, to an application process through a bus of a printed circuit board.

12. (Previously Presented) The method of claim 4, wherein said passing step comprises communicating the document, as processed, to a target via a communications network.

13. (Previously Presented) The method of claim 4, wherein the target is a local application process.

14. (Previously Presented) The method of claim 4, wherein the target is a remote device.

15. (Currently Amended) A system for efficient processing of a document encoded in a markup language, the system comprising:

a memory provided on a printed circuit board;

a general purpose processor provided on said printed circuit board and being operatively connected to said memory for executing computer readable code stored in said memory, said computer readable code configuring said general purpose processor to perform processing distinct from certain processing of documents encoded in the markup language; and

a special purpose processor provided as an integrated circuit on said printed circuit board and being operatively connected to said memory said special purpose processor being specially configured for certain processing of documents encoded in the markup language;

wherein said special purpose processor is a dedicated processor.

16. (Original) The system of claim 15, wherein said special purpose processor is configured for parsing documents encoded in machine-oriented extensible markup language (mXML) .

17. (Previously Presented) The system of claim 15, wherein said special purpose processor is configured for transforming documents encoded in extensible markup language (XML) .

18. (Previously Presented) The system of claim 15, wherein said special purpose processor comprises a dedicated integrated circuit that is specially configured for processing the document.

19. (Previously Presented) The system of claim 18, further comprising:

a telecommunications device operatively connected to said general purpose processor and capable of communicating via a communications network; and

a first program stored in said memory and executable by said general purpose processor for controlling said special purpose processor to process the document, and for communicating the document, as processed, to a target.

20. (Previously Presented) The system of claim 19, further comprising:

a second program stored in the memory and executable by said general purpose processor for recognizing the document as encoded in the markup language and responsively controlling said special purpose processor to process the document.

21. (Original) The system of claim 15, wherein said special purpose processor comprises a supplemental general purpose processor for executing computer readable code for processing the document.

22. (Previously Presented) The system of claim 21, wherein said computer readable code is configured for processing the document in machine-oriented extensible markup language (mXML) .

23. (Previously Presented) The system of claim 21, further comprising:

a telecommunications device operatively connected to said general purpose processor and capable of communicating via a communications network; and

a first program stored in said memory and executable by said general purpose processor for controlling said special purpose processor to process the document, and for communicating the document, as processed, to a target.

24. (Previously Presented) The system of claim 23, further comprising:

a second program stored in the memory and executable by said general purpose processor for recognizing the document as encoded in the markup language and responsively controlling said special purpose processor to process the document.

25. (Currently Amended) A printed circuit board comprising:

a local communication bus;

a general purpose processor for executing computer readable code stored in a memory, said general purpose processor being operably connected to said local communication bus; and

a special purpose processor operably connected to said general purpose processor via said local communication bus for communicating therewith, said special purpose processor being a dedicated integrated circuit configured for:

receiving from said general purpose processor, via said local bus, a document encoded in a markup language;

processing the document; and

communicating the document, as processed, to a target.

26. (Currently Amended) The printed circuit board of claim 25, wherein said special purpose processor ~~comprises a dedicated integrated circuit that~~ is specially configured for processing the document.

27. (Previously Presented) The printed circuit board of claim 26, wherein said processing includes parsing and/or transforming of the document.

28. (Previously Presented) The printed circuit board of claim 25, wherein said special purpose processor comprises a supplemental general purpose processor.

29. (Previously Presented) The printed circuit board of claim 28, further comprising:

a memory operably connected to said supplemental general purpose processor; and

computer readable code stored in said memory and executable by said supplemental general purpose processor for processing the document.

30. (Previously Presented) The method of claim 1, wherein said special purpose processor comprises a first microprocessor, and said general purpose processor comprises a second microprocessor separate from said first microprocessor.

31. (Previously Presented) A system for efficient processing of a document encoded in a markup language, the system comprising:

a dedicated processing device comprising:

a memory provided on a printed circuit board;

a special purpose processor provided as an integrated circuit on said printed circuit board and being operatively connected to said memory said special purpose processor being specially configured for certain processing of documents encoded in the markup language, said special purpose processor is a dedicated processor; and

a plurality of computing devices, each of said computing devices being operably connected to said processing device for communication therewith, each of said plurality of computing devices comprising:

a second memory provided on a second printed circuit board; and

a general purpose processor provided as an integrated circuit on said second printed circuit board and being operatively connected to said second memory for executing computer readable code stored in said second memory, said computer readable code configuring said general purpose processor to perform processing distinct from said certain processing of documents encoded in the markup language;

a first program stored in said second memory and executable by said general purpose processor for recognizing the document as encoded in the markup language and transmitting the document to said dedicated processing device for processing by said special purpose processor.